## SEQUENCE LISTING

- <110> Batard, Yannick Durst, Francis Schalk, Michel Werck-Reichhart, Daniele
- <120> RECODING OF DNA SEQUENCES PERMITTING EXPRESSION IN YEAST AND OBTAINED TRANSFORMED YEAST

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<141> 1998-09-23
<150> FR 97-12094
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Leu	Lys	Ala	Asp		Ala	Ala	Ala	Thr			Val	Val	Val		Arg
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arg	ьeu	GIII	180		Met	тут	ASII	. Asp 185		FIIC	Arg	116	190	FIIE	Asp
Ara	Ara	Phe			Val	Ala	Asp			Phe	Asn	Gln		Lys	Ala
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<b>3</b> -05	<b>D</b>	<b>01</b>	<b>T</b> 1_	<b>al</b> =	310	T	Τ	7	<b>~</b> 1	315	T10	77-7	ת ד ת	17a ]	320
Has H	Pro	GIU	iie	325	Gln	гуя	ьеи		330	Giu	116	vaı	AIa	335	пеп
	Δla	Glv	Val		Val	Thr	Glu			Leu	Glu	Arq	Leu		Tyr
			340					345					350		•
⊑ Leu	Gln	Ser	Val	Val	Lys	Glu	Thr	Leu	Arg	Leu	Arg	Met	Ala	Ile	Pro
		355			•		360					365			
Leu	Leu	Val	Pro	His	Met		Leu	Ser	Asp	Ala		Leu	Ala	Gly	Tyr
_	370	_			,	375	<b>-</b> 7 -	•	**- 7	2	380		Dha	T	77 -
~	Ile	Pro	Ala	GIU	Ser 390	гуѕ	ше	Leu	vaı.	395	Ala	Trp	Pne	ьец	400
385	λαρ	Dro	Tave	Δτα	Trp	Val	Δra	Δla	Asn		Phe	Ara	Pro	Glu	
ASII	veb	FIO	БуЗ	405	112	Vai	**** 9	1114	410	Olu	1110	5		415	5
Phe	Leu	Glu	Glu		Lys	Ala	Val	Glu		His	Gly	Asn	Asp		Arg
			420		-			425			_		430		
Phe	Val	Pro	Phe	Gly	Val	Gly	Arg	Arg	Ser	Cys	Pro	Gly	Ile	Ile	Leu
		435					440					445	_		
Ala		Pro	Ile	Ile	Gly		Thr	Leu	Gly	Arg		Val	Gln	Asn	Phe
<b>a</b> ]	450	<b>.</b>	Dec =	D	Daga	455	<b>~1</b> ~	7 ~~	T	т1^	460	Th∽	ሞኮ~	دا ا	Larg
	ьeu	ьeu	Pro		Pro 470	сту	GIII	Asp	пув	475	Ash	TIIT	TIIT	GIU	цуS 480
465					¥ / U					4 / J					-00



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485
490
495
Lys Pro Leu Glu Ala

Lys Pro Leu Glu Ala 500

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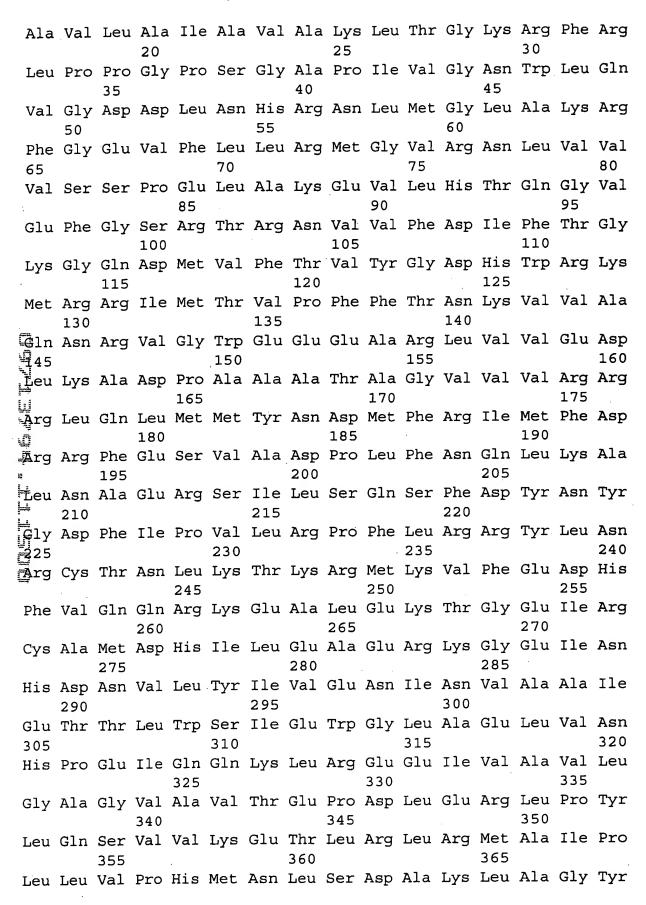
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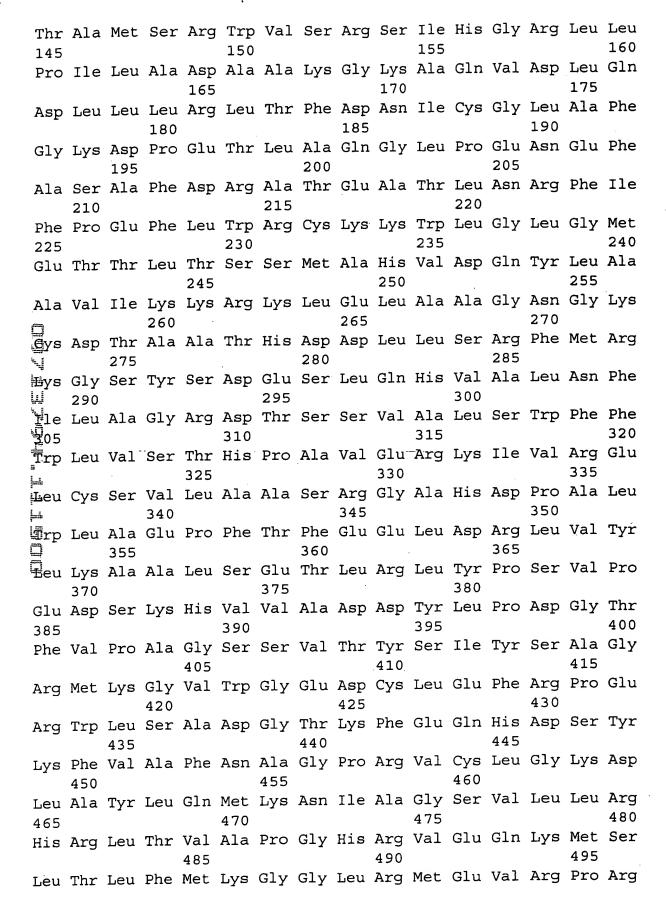
245 250 Phe Val Gln Gln Arg Lys Glu Ala Leu Glu Lys Thr Gly Glu Ile Arg 260 265 Cys Ala Met Asp His Ile Leu Glu Ala Glu Arg Lys Gly Glu Ile Asn 280 His Asp Asn Val Leu Tyr Ile Val Glu Asn Ile Asn Val Ala Ala Ile 295 300 Glu Thr Thr Leu Trp Ser Ile Glu Trp Gly Leu Ala Glu Leu Val Asn 310 315 His Pro Glu Ile Gln Gln Lys Leu Arg Glu Glu Ile Val Ala Val Leu 325 330 Gly Ala Gly Val Ala Val Thr Glu Pro Asp Leu Glu Arg Leu Pro Tyr 345 Leu Gln Ser Val Val Lys Glu Thr Leu Arg Leu Arg Met Ala Ile Pro 360 Leu Leu Val Pro His Met Asn Leu Ser Asp Ala Lys Leu Ala Gly Tyr 375 380 370 Asp Ile Pro Ala Glu Ser Lys Ile Leu Val Asn Ala Trp Phe Leu Ala 395 390 Asn Asp Pro Lys Arg Trp Val Arg Ala Asp Glu Phe Arg Pro Glu Arg 410 Phe Leu Glu Glu Glu Lys Ala Val Glu Ala His Gly Asn Asp Phe Arg 425 Phe Val Pro Phe Gly Val Gly Arg Arg Ser Cys Pro Gly Ile Ile Leu 445 440 Ala Leu Pro Ile Ile Gly Ile Thr Leu Gly Arg Leu Val Gln Asn Phe 455 In Leu Leu Pro Pro Pro Gly Gln Asp Lys Ile Asp Thr Thr Glu Lys 470 475 Pro Gly Gln Phe Thr Asn Gln Ile Leu Lys His Ala Thr Ile Val Cys 490 Lys Pro Leu Glu Ala 500 <210> 18 <211> 501 <212> PRT <213> Artificial Sequence <220> <223> Altered sequences <400> 18 Met Asp Val Leu Leu Glu Lys Ala Leu Leu Gly Leu Phe Ala Ala 15 10 1





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385					390					395				_	400
Asn	Asp	Pro	Lys	Arg 405		Val	. Arg	Ala	Asp 410		Phe	Arg	Pro	Glu 415	Arg
Phe	Leu	Glu	Glu 420		Lys	Ala	Val	Glu 425		His	Gly	Asn	Asp 430	Phe	Arg
Phe	Val	Pro 435			Val	Gly	Arg		Ser	Cys	Pro	Gly 445	Ile	Ile	Leu
Ala	Leu 450		Ile	Ile	Gly	Ile 455	Thr		Gly	Arg	Leu 460		Gln	Asn	Phe
		Leu	Pro	Pro	Pro 470			Asp	Lys	Ile 475		Thr	Thr	Glu	Lys 480
465 Pro	Gly	Gln	Phe	Thr 485	Asn	Gln	Ile	Leu	Lys 490		Ala	Thr	Ile	Val 495	
Tara	Dro	T.011	Glu	Ala					430					473	
O O T	PIO	Бец	500	Aια											
*. <u>.</u>	<2	210>	19												
<b> -</b> 4	<2	211>	541												
W Li	<2	212>	PRT												
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14		100-	10												
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<b>=</b> 1			_	5					10					15	
		_	20					25					30		
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Met	His 50	Glu	Trp	Ile	Ala	Gly 55	Asn	Leu	Arg	Arg	Ala 60	Gly	Gly	Thr	Tyr
Gln 65	Thr	Cys	Ile	Phe	Ala 70	Val	Pro	Gly	Val	Ala 75	Arg	Arg	Gly	Gly	Leu 80
	Thr	Val	Thr	Cys 85	Asp	Pro	Arg	Asn	Leu 90	Glu	His	Val	Leu	Lys 95	Ala
Arg	Phe	Asp	Asn 100		Pro	Lys	Gly	Pro 105		Trp	His	Gly	Val 110	Phe	Arg
Asp	Leu	Leu 115		Asp	Gly	Ile	Phe 120		Ser	Asp	Gly	Asp 125		Trp	Leu
Ala	Gln 130		Lys	Thr	Ala	Ala 135		Glu	Phe	Thr	Thr 140		Thr	Leu	Arg







510 505 500 Asp Leu Ala Pro Val Leu Asp Glu Pro Cys Gly Leu Asp Ala Gly Ala 520 Ala Thr Ala Ala Ala Ser Ala Thr Ala Pro Cys Ala 540 535 530 <210> 20 <211> 541 <212> PRT <213> Artificial Sequence <220> <223> Altered sequences <400> 20 Met Glu Val Gly Thr Trp Ala Val Val Ser Ala Val Ala Ala Tyr 1.0 Met Ala Trp Phe Trp Arg Met Ser Arg Gly Leu Arg Gly Pro Arg Val 20 Prp Pro Val Leu Gly Ser Leu Pro Gly Leu Val Gln His Ala Glu Asp Met His Glu Trp Ile Ala Gly Asn Leu Arg Arg Ala Gly Gly Thr Tyr Gln Thr Cys Ile Phe Ala Val Pro Gly Val Ala Arg Arg Gly Gly Leu ₩al Thr Val Thr Cys Asp Pro Arg Asn Leu Glu His Val Leu Lys Ala 90 rg Phe Asp Asn Tyr Pro Lys Gly Pro Phe Trp His Gly Val Phe Arg Asp Leu Leu Gly Asp Gly Ile Phe Asn Ser Asp Gly Asp Thr Trp Leu 120 Ala Gln Arg Lys Thr Ala Ala Leu Glu Phe Thr Thr Arg Thr Leu Arg 135 130 Thr Ala Met Ser Arg Trp Val Ser Arg Ser Ile His Gly Arg Leu Leu 150 155 Pro Ile Leu Ala Asp Ala Ala Lys Gly Lys Ala Gln Val Asp Leu Gln 170 165 Asp Leu Leu Arg Leu Thr Phe Asp Asn Ile Cys Gly Leu Ala Phe 185 180 Gly Lys Asp Pro Glu Thr Leu Ala Gln Gly Leu Pro Glu Asn Glu Phe 205 200 Ala Ser Ala Phe Asp Arg Ala Thr Glu Ala Thr Leu Asn Arg Phe Ile 215 Phe Pro Glu Phe Leu Trp Arg Cys Lys Lys Trp Leu Gly Leu Gly Met 240

230

225

235



				245					His 250					255	
			260					265	Leu				270		
_		275					280		Leu			285			
Lys	Gly 290	Ser	Tyr	Ser	Asp	Glu 295	Ser	Leu	Gln	His	Val 300	Ala	Leu	Asn	Phe
Ile	Leu	Ala	Gly	Arg	Asp 310	Thr	Ser	Ser	Val	Ala 315	Leu	Ser	Trp	Phe	Phe 320
Trp	Leu	Val	Ser	Thr 325	His	Pro	Ala	Val	Glu 330	Arg	Lys	Ile	Val	Arg 335	Glu
1	_		340					345	Gly		*		350		
Trp	Leu	Ala 355	Glu	Pro	Phe	Thr	Phe 360	Glu	Glu	Leu	Asp	Arg 365	Leu	Val	Tyr
⊈eu U	370					375					380				
<u>G</u> lu 385	_				390					395					400
Phe	Val	Pro	Ala	Gly 405	Ser	Ser	Val	Thr	Tyr 410	Ser	Ile	Tyr	Ser	Ala 415	Gly
Ārg			420					425					430		
Ārg		435					440					445			
# ! F	450					455			Arg		460				
<u>f</u> eu 465					470					475					480
His				485					Arg 490					495	
			500					505					510		Arg
Asp	Leu	Ala 515	Pro	Val	Leu	Asp	Glu 520	Pro	Cys	Gly	Leu	Asp 525	Ala	Gly	Ala
Ala	Thr 530	Ala	Ala	Ala	Ala	Ser 535	Ala	Thr	Ala	Pro	Cys 540	Ala			